

87-2254

OIT/TRIS  
LOGGED

MEMORANDUM FOR: Director of Central Intelligence

FROM: William F. Donnelly  
Deputy Director for Administration

SUBJECT: Computer Support for Handicapped Employees

STAT 1. Attached is a letter from Judge Leonard J. Suchanek, Chairman of the Interagency Committee for Computer Support of Handicapped Employees. It invites the Agency to appoint a member to the committee. The invitation to join the committee grew out of a conversation between [redacted] a CIA employee connected with handicapped programs in the Office of Information Technology (OIT) of the Directorate of Administration, and Judge Suchanek.

STAT 2. I believe our active participation in the committee's work would be of great value to the Agency. OIT has in place a program, headed by [redacted] to investigate and obtain adaptive computer aids that enable Agency employees with disabilities to make even more effective contributions. This program also helps us recruit potential employees having disabilities. Participation in Judge Suchanek's committee would enhance our work in carrying out this program and foster a mutually beneficial relationship between this Agency and other members of the committee.

STAT 3. Membership on the committee is at the senior executive level. I would like to nominate Edward J. Maloney, Director of Information Technology, as the Agency representative. [redacted] will be designated as alternate, and will carry out the day-to-day activities associated with our membership.

STAT 4. Further information on the committee is available from Edward Maloney at [redacted] I urge your approval of this activity and have provided a draft response to Judge Suchanek for your convenience.

ILLEGIB [redacted]

William F. Donnelly

Attachments  
As stated

Central Intelligence Agency



Washington, D.C. 20505

22 DEC 1987

Judge Leonard J. Suchanek  
Chief Judge and Chairman  
Board of Contract Appeals  
General Services Administration  
Washington, D.C. 20405

Dear Judge Suchanek:

I am pleased to accept your invitation for CIA membership on the Interagency Committee for Computer Support of Handicapped Employees (ICCSHE). I believe our participation will be of great benefit to both the CIA and the ICCSHE itself.

Our Office of Information Technology (OIT) has in place a program to investigate and obtain adaptive computer aids that will enable CIA employees with disabilities to make even more effective contributions and will help us to recruit potential employees having disabilities. I wish to nominate the Director of this Office, Mr. Edward J. Maloney, to represent the CIA on the ICCSHE. Mr. Maloney may be reached at [redacted]

I also wish to designate [redacted] the OIT employee in charge of this handicapped program, as an alternate to carry out day-to-day activities associated with our membership. [redacted] may be reached at [redacted]

I look forward to cooperating with you in this important program.

Sincerely,

/s/ William H. Webster

William H. Webster  
Director of Central Intelligence

**Subject: Computer Support for Handicapped Employees**

STAT D/OIT.EJMaloney,  9 Oct 87

**Distribution:**

Original - Addressee

- 1 - Executive Reg.
- 2 - DDA
- 2 - OIT Reg.
- 1 - D/OIT

## **Board of Contract Appeals**

General Services Administration  
Washington DC 20405

August 24, 1987

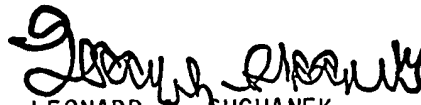
Dear Judge Webster:

The Interagency Committee for Computer Support of Handicapped Employees (ICCSHE) was established by the General Services Administration (enclosure 1) to advance the management and use of microcomputer and related technology in order to promote the productivity and achievement of handicapped federal employees. I believe that ICCSHE's early achievements (enclosure 2) are having a significant impact on the management and utilization of federal computing resources to benefit employees with disabilities, i.e., the specially able.

As Chairman of ICCSHE, I would welcome the Central Intelligence Agency as a member of our Committee. I invite you to designate a representative from your agency. The representation of our member agencies is comprised of senior executives at the Assistant Secretary level who have information resources management responsibilities.

Our next meeting will be held on Monday, September 28, 1987, at 2:00 p.m. in Room 5114, General Services Administration, 18th and F Streets, NW., Washington, DC.

Sincerely,

  
LEONARD J. SUCHANEK  
Chief Judge and Chairman

Judge William Webster  
Director  
Central Intelligence Agency  
Washington, DC 20505

Enclosures (3)

ILLEGIB

# **Interagency Committee for Computer Support of Handicapped Employees**

---



**U.S. General  
Services  
Administration**

**Information  
Resources  
Management Service**

---

**O**n March 3, 1984, the General Services Administration (GSA) established the Interagency Committee for Computer Support of Handicapped Employees (ICCSHE) in recognition that the "rapid development of microcomputers makes computer support of handicapped Federal employees both practical and economical for the Government, and that policies are required to manage such computers."

The goal of ICCSHE is to advance the management and use of microcomputer and related technology in order to promote the productivity and achievement of handicapped Federal employees.

ICCSHE advises GSA on government-wide policy for using computer technology to benefit handicapped employees. ICCSHE also sponsors activities to further Federal agencies' awareness of using computer technology to aid handicapped employees and to recognize the accomplishments of Federal agencies that promote computer support of handicapped employees.

## Membership

ICCSHE is chaired by Leonard J. Suchanek, Chief Judge and Chairman of the GSA Board of Contract Appeals. Committee representatives have been designated by the heads of the following participating departments and agencies:

Department of Agriculture  
Department of Commerce  
Department of Defense  
Department of Education  
Department of Health and Human Services  
Department of Housing and Urban Development  
Department of the Interior  
Department of Justice  
Department of Labor  
Department of State  
Department of Transportation  
Department of Treasury  
Equal Employment Opportunity Commission  
Federal Communications Commission  
Federal Emergency Management Agency

General Services Administration  
Library of Congress  
National Science Foundation  
Office of Personnel Management  
President's Committee on Employment of the Handicapped  
Veterans Administration

## Committee Structure

Committee representatives participate in one or more of the following four working groups to achieve ICCSHE objectives:

### Policy

- Guides and assists agencies to formalize their information technology support responsibilities.
- Advises GSA on government-wide policy for information technology in support of disabled employees.

### Information Technology Initiatives

- Advances the recognition of exemplary information technology support initiatives and accomplishments of federal agencies.
- Identifies and promotes the development of information technology that accommodates the access requirements of individuals with disabilities.

### International Initiatives

- Facilitates information exchange in order to identify policy and technical issues of mutual concern and to promote the use of information technology by persons with disabilities.

### Symposium Management

- Sponsors an annual symposium to enhance knowledge in the public and private sectors of the value of information technology in the employment and productivity of disabled employees.

## For More Information

Contact Susan Brummel at General Services Administration, 18th and F Streets, NW, Room 1213, Washington, DC 20405, phone FTS 523-1906 or (202) 523-1906 (Voice or TDD).

The House recedes.

160. Sec. 401(a)(1) of the Act as amended by the Senate amendment is designated and adds "legislative proposals" to the information the Council should provide.

The House bill contains no comparable provision.

The House recedes.

161. Sec. 401(a) of the Act as amended by the House bill requires the Council to develop a system of national information and data collection on individuals with handicaps, to submit a plan for such system, and to require a report every 2 years on the changing status of individuals with handicaps.

The Senate amendment contains no comparable provision.

The Senate recedes with an amendment. (Sec. 162)

162. Sec. 401(b) of the Act as amended by the Senate amendment requires the Council to establish goals for the year 2000, issue a report in 6 months on strategies, and to submit an annual report on the progress of meeting these goals.

The House bill contains no comparable provision.

The Senate recedes with an amendment. The conference agreement provides that the National Council shall annually issue a report to the President and the Congress on the progress that has been made in implementing the recommendations contained in the Council's January 30, 1986 report "Toward Independence". Such report shall present, as appropriate, available data on health, housing, employment, insurance, transportation, recreation and education, and shall include appropriate information on the current status and trends in the status of individuals with disabilities. It is not the intent of the conferees that the Council construe this legislation as requiring the submission of an annual report if the Council does not deem such a report necessary.

163. Sec. 405 of the Act as amended by the Senate amendment authorizes such sums through fiscal year 1990.

The House bill contains no comparable provision.

The House recedes with an amendment adding an authorization of such sums for fiscal year 1991.

164. Sec. 501 of the Act as amended by the Senate amendment strikes "Office of Personnel Management" each time it appears and inserts "Equal Employment Opportunity Commission".

The House bill contains no comparable provision.

The House recedes.

165. Sec. 502(a)(1)(A) of the Act as amended by the House bill increases the number of Presidential appointees from 11 to 12, and to require that 6 rather than 5 of those appointees be individuals with handicaps.

The Senate amendment contains no comparable provision.

The Senate recedes.

166. Sec. 502(a)(1) of the Act as amended by the House bill requires the annual election of the vice chairperson by a majority vote of the members and that the Chairperson rotate annually from public to Federal member.

The Senate amendment contains no comparable provision.

The Senate recedes.

167. Sec. 502(a)(2) of the Act as amended by the House bill allows a member whose term has expired to serve until a successor is appointed.

The Senate amendment contains no comparable provision.

The Senate recedes.

168. Sec. 502(a) of the Act as amended by the House bill requires the Board to es-

tablish bylaws, including quorum requirements.

The Senate amendment contains no comparable provision.

The Senate recedes.

169. Sec. 502(d)(3) of the Act as amended by the Senate amendment strikes "Department of Health, Education and Welfare" and "with respect overcoming to" and inserts "Department of Education" and "with respect to overcoming", respectively.

The House bill contains no comparable provision.

The House recedes.

170. Sec. 502(e)(2) of the Act as amended by the Senate amendment inserts "and" after the word "noncompliance".

The House bill contains no comparable provision.

The House recedes.

171. Sec. 502(g) of the Act as amended by the Senate amendment requires the Board to submit 2 additional reports by February 1, 1988.

The House bill contains no comparable provision.

The House recedes.

172. Sec. 503(c) of the Act as amended by the House bill strikes "he" both times it appears and "his" and inserts "the President" and "the", respectively.

The Senate amendment contains no comparable provision.

The Senate recedes.

173. Sec. 504 of the Act as amended by the Senate amendment strikes "7(7)" and inserts "7(8)".

The House bill contains no comparable provision.

The House recedes.

174. Sec. 507 of the Act as amended by the House bill adds "the Assistant Secretary of the Interior for Indian Affairs"; strikes "Chairman" the third time it appears and inserts "Chairperson".

The Senate amendment contains no comparable provision.

The Senate recedes.

175(a). Sec. 508(a) of the Act as added by the Senate amendment requires the Secretary to develop guidelines for electronic equipment accessibility.

The House bill contains no comparable provision.

The House recedes with an amendment adding "and the Administrator of the General Services Administration" after the word "Research".

175(b). Sec. 508(b) of the Act as added by the Senate amendment requires the Administrator of the General Services Administration to adopt such guidelines.

The House bill contains no comparable provision.

The House recedes.

175(c). Sec. 508(c) of the Act as added by the Senate amendment defines "special peripherals".

The House bill contains no comparable provision.

The House recedes. The Administrator of General Services shall submit no later than December 31st of each year an annual report on the progress of the implementation by Federal agencies of the regulations promulgated with GSA along with any recommendations and findings by the GSA's Interagency Committee for Computer Support of Handicapped Employees. For purposes of this section, equipment includes hardware, software and firmware.

176(a). Sec. 615(a)(1) of the Act as amended by the House bill adds "and the needs of Indian tribes" to the requirements the Secretary must consider when distributing title VI-A funds.

The Senate amendment contains no comparable provision.

The Senate recedes.

176(b). Sec. 615(c) of the Act as amended by the House bill adds "(including individuals residing on Indian reservations)".

The Senate amendment contains no comparable provision.

The Senate recedes.

177(b). Sec. 617 of the Act as amended by the House bill authorizes such sums through fiscal year 1991.

Sec. 617 of the Act as amended by the Senate amendment authorizes such sums through fiscal year 1990.

The Senate recedes.

178. Sec. 621(a)(1) of the Act as amended by the Senate amendment adds a purpose statement and redesignates the old paragraph "(a)" as "(2)".

The House bill contains no comparable provision.

The House recedes.

179. Sec. 621(a)(2) of the Act as amended by the Senate amendment revises the responsibilities of Projects with Industry, and requires Business Advisory Councils.

The House bill contains no comparable provision.

The House recedes.

180. Sec. 621(a)(3) of the Act as amended by the House bill strikes "each year of a funding cycle" and inserts "each project years".

Sec. 621(a)(4) of the Act as amended by the Senate amendment, as redesignated, retains current law.

The Senate recedes.

181. Sec. 621(b)(4) of the Act as amended by the House bill adds "(4)" provides assurances that an evaluation report containing data specified under subsection (a)(3) shall be submitted as determined by the Commissioner."

Sec. 621(b)(4) of the Act as amended by the Senate amendment adds "(4) provides assurances that an evaluation report containing data specified under subsection (a)(4) shall be submitted to the Commissioner."

The House recedes.

182. Sec. 621(d)(1) of the Act as amended by the Senate amendment authorizes the Commissioner to revise the PWI evaluation standards as necessary.

The House bill contains no comparable provision.

The House recedes.

183. Sec. 621(e) of the Act as amended by the House bill requires financial assistance for PWI grants to be effective for up to 5 years, contingent on the availability of appropriations, and directs the Commissioner to annually review the evaluations to determine the continued status of the agreements.

The Senate amendment contains no comparable provision.

The House recedes to the Senate and the Senate recedes to the House with an amendment providing that a portion of the funds are to be used for the establishment of new centers in accordance with established timelines.

184. Sec. 621(e) of the Act as amended by the Senate amendment allows the Commissioner to provide technical assistance to PWI's.

The House bill contains no comparable provision.

The House recedes.

185. Sec. 621(f) of the Act as amended by the Senate amendment provides continued funding for 4 years to PWI's which meet the standards approved by the National Council.

The House bill contains no comparable provision.

October 2, 1986

## CONGRESSIONAL RECORD — HOUSE

H 8969

planning services for both severely and mildly handicapped youth designed to develop procedures, strategies, and techniques which may be replicated successfully in other rural States.

(5) There are authorized to be appropriated \$450,000 for fiscal year 1987, \$475,550 for fiscal year 1988, \$564,427 for fiscal year 1989, \$535,550 for fiscal year 1990, and \$557,016 for fiscal year 1991 to carry out the provisions of this subsection."

## SEC. 197. SPECIAL RECREATIONAL PROGRAMS

Section 316 of the Act is amended to read as follows:

"SEC. 316. (a)(1) The Commissioner, subject to the provisions of section 306, shall make grants to States, public agencies, and nonprofit private organizations for paying part or all of the cost of initiation of recreation programs to provide handicapped individuals with recreational activities and related experiences to aid in the mobility, socialization, independence, and community integration of such individuals. The programs authorized to be assisted under this section may include, but are not limited to, leisure education, leisure networking, leisure resource development, physical education and sports, scouting and camping, 4-H activities, music, dancing, handicrafts, art, and homemaking. Whenever possible and appropriate, such programs and activities should be provided in settings with nonhandicapped peers. Programs and activities under this section shall be designed to demonstrate ways in which such programs assist in maximizing the independence and integration of individuals with handicaps.

"(2) Each such grant shall be made for a minimum of a three-year period.

"(3) No grant may be made under this section unless the agreement with respect to such grant contains provisions to assure that, to the extent possible, existing resources will be used to carry out the activities for which the grant is to be made, and that with respect to children the activities for which the grant is to be made will be conducted before or after school.

"(b) There are authorized to be appropriated \$2,330,000 for fiscal year 1987, \$2,470,000 for fiscal year 1988, \$2,620,000 for fiscal year 1989, \$2,780,000 for fiscal year 1990, and \$2,894,000 for fiscal year 1991 to carry out this section."

## TITLE V—NATIONAL COUNCIL ON THE HANDICAPPED.

## SEC. 501. PURPOSE OF THE COUNCIL.

Section 400(a) of the Act is amended—

(1) by inserting "(1)" after the subsection designation; and

(2) by adding at the end thereof the following new paragraph:

"(2) The purpose of the National Council is to promote the full integration, independence, and productivity of handicapped individuals in the community, schools, the workplace and all other aspects of American life."

## SEC. 502. DUTIES OF NATIONAL COUNCIL.

## (a) DUTIES.—

"(1) Section 401(a)(4) of the Act is amended to read as follows:

"(1) review and evaluate on a continuing basis—

"(A) all policies, programs, and activities concerning handicapped persons with disabilities, including programs established by Federal departments under this Act or under Disabilities Assistance Act; and

"(B) all statutes pertaining to handicapped persons."

in order to assess the effectiveness of such policies, programs, activities, and statutes in meeting the needs of handicapped individuals and persons with disabilities."

"(2) Section 401(a) of the Act is amended—

(A) by redesignating clauses (5), (6), and (7) as clauses (6), (7), and (8), respectively,

and

(B) by inserting after clause (4) the following:

"(5) assess the extent to which such policies, programs, and activities provide incentives or disincentives to the establishment of community-based services for handicapped individuals, promote the full integration of such individuals in the community, in schools, and in the workplace, and contribute to the independence and dignity of such individuals."

"(3) Section 401(a)(8) of the Act (as redesignated by paragraph (2)) is amended by inserting "legislative proposals" after "recommendations."

(b) ADDITIONAL DUTIES.—Section 401(b) of the Act is amended to read as follows:

"(b)(1) Not later than January 30, 1988, and annually thereafter, the National Council shall issue a report to the President and the Congress on the progress that has been made in implementing the recommendation contained in the Council's January 30, 1986, report Toward Independence.

"(2) The reports issued pursuant to paragraph (1) shall present, as appropriate, available data on health, housing, employment, insurance, transportation, recreation, and education, and shall include appropriate information on the current status and trends in the status of individuals with disabilities."

## SEC. 503. STAFF.

Section 403(b) of the Act is amended by striking out paragraph (4).

## SEC. 504. REALTHORIZATION.

Section 405 of the Act is amended by inserting before the period at the end thereof the following: "for each of the fiscal years 1987, 1988, 1989, 1990, and 1991."

## TITLE VI—ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD

## SEC. 601. ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD.

(a) MEMBERSHIP AND QUORUM REQUIREMENTS.—Section 502(a) of the Act is amended—

(1) in paragraph (1)(B) by striking out "The President" and all that follows through the end of such paragraph and inserting in lieu thereof "The Chairperson and vice-chairperson of the Board shall be elected by majority vote of the members of the Board to serve for terms of one year. When the chairperson is a member of the general public, the vice-chairperson shall be a Federal official; and when the chairperson is a Federal official, the vice-chairperson shall be a member of the general public. Upon the expiration of the term as chairperson of a member who is a Federal official, the subsequent chairperson shall be a member of the general public; and vice versa."

(2) in paragraph (1)(A)—

(A) by striking out "Eleven" and inserting in lieu thereof "Twelve"; and

(B) by striking out "five" and inserting in lieu thereof "six";

(3) in paragraph (2) by striking out "and (1)" and all that follows through the end of such paragraph and inserting in lieu thereof "This term has expired may be extended to a maximum of two years."

(4) by striking out "and (1)" and all that follows through the end of such paragraph and inserting in lieu thereof "This term has expired may be extended to a maximum of two years."

(5) by striking out "and (1)" and all that follows through the end of such paragraph and inserting in lieu thereof "This term has expired may be extended to a maximum of two years."

(6) by striking out "and (1)" and all that follows through the end of such paragraph and inserting in lieu thereof "This term has expired may be extended to a maximum of two years."

(7) by striking out "and (1)" and all that follows through the end of such paragraph and inserting in lieu thereof "This term has expired may be extended to a maximum of two years."

(8) by striking out "and (1)" and all that follows through the end of such paragraph and inserting in lieu thereof "This term has expired may be extended to a maximum of two years."

(9) by striking out "and (1)" and all that follows through the end of such paragraph and inserting in lieu thereof "This term has expired may be extended to a maximum of two years."

"(b)(A) The Board shall establish such bylaws and other rules as may be necessary to enable the Board to carry out its functions under this Act.

"(B) The bylaws shall include quorum requirements. The quorum requirements shall provide that (i) a proxy may not be counted for purposes of establishing a quorum, and (ii) not less than half the members required for a quorum shall be members of the general public appointed under paragraph (1)(A)."

(b) SPECIAL REPORTS.—Section 502(a) of the Act is amended by adding at the end thereof the following: "The Board shall prepare and submit two additional reports of its activities under subsection (c) of this section, one report on its activities in the field of transportation barriers of handicapped individuals and the other report on its activities in the field of the housing needs of handicapped individuals. The two additional reports required by the previous sentence shall be submitted not later than February 1, 1988."

(c) AUTHORIZATIONS.—Section 502(i) of the Act is amended by striking out "fiscal year ending before October 1, 1986," and inserting in lieu thereof "of the fiscal years 1987, 1988, 1989, 1990, and 1991."

## SEC. 602. INTERAGENCY COORDINATING COUNCIL.

The first sentence of section 507 of the Act is amended by inserting "the Assistant Secretary of the Interior for Indian Affairs," after "Labor."

## SEC. 603. ELECTRONIC EQUIPMENT ACCESSIBILITY.

(a) ELECTRONIC EQUIPMENT ACCESSIBILITY.—

Title V of the Act is amended by inserting after section 507 the following new section:

## "ELECTRONIC EQUIPMENT ACCESSIBILITY"

"SEC. 508. (a)(1) The Secretary, through the National Institute on Disability and Rehabilitation Research and the Administrator of the General Services, in consultation with the electronics industry, shall develop and establish guidelines for electronic equipment accessibility designed to insure that handicapped individuals may use electronic office equipment with or without special peripherals.

"(2) The guidelines established pursuant to paragraph (1) shall be applicable with respect to electronic equipment, whether purchased or leased.

"(3) The initial guidelines shall be established not later than October 1, 1987, and shall be periodically revised as technologies advance or change.

"(b) Beginning after September 30, 1988, the Administrator of General Services shall adopt guidelines for electronic equipment accessibility established under subsection (a) for Federal procurement of electronic equipment. Each agency shall comply with the guidelines adopted under this subsection.

"(c) For the purpose of this section, the term 'special peripherals' means a special needs aid that provides access to electronic equipment that is otherwise inaccessible to a handicapped individual."

(b) CONFORMING AMENDMENT.—The table of contents of the Act is amended by inserting after item "Sec. 507," the following new item:

"Sec. 508. Electronic equipment accessibility."

## TITLE VII—EMPLOYMENT OPPORTUNITIES FOR INDIVIDUALS WITH HANDICAPS

## SEC. 701. EQUITABLE DISTRIBUTION OF ASSISTANCE.

(a) EQUITABLE DISTRIBUTION.—Section 615(a)(1) of the Act is amended in the second sentence by inserting before the period "and the needs of Indian tribes".

(b) APPOINTMENT.—Section 615(c)(2) of the Act is amended by inserting before the



# GOVERNMENT DATA SYSTEMS

THE AUTHORITATIVE VOICE OF ADP, COMMUNICATIONS, IRM, TRAINING, AND OFFICE AUTOMATION



**LEONARD  
SUCHANEK'S  
CRUSADE:  
Aiding  
Handicapped  
Workers**

**How Good Is Ada In  
Real-Time Systems?**

**Don't Trust  
Your Spreadsheet**

# How to Accommodate Handicapped Workers

By Susan Brummel

Increasingly, personal computers serve as the core component of most accommodation solutions

**M**icrocomputers and related office automation technology are rapidly becoming common and indispensable tools for federal employees. In 1983, the federal government owned fewer than 8,000 microcomputers. By 1985, that figure had grown to more than 67,000, with no end in sight. Office automation represents a major investment in the federal government with purchases and services in 1986 totalling approximately 15 billion dollars.

Information technology holds great promise as a productivity tool for handicapped individuals. Users with visual and motor impairments have been able to derive special benefits from the use of microcomputers in federal offices due to the availability of hardware and software that accommodates their functional limitations and promotes significant productivity gains.

As federal managers plan for end-user computing, the needs of their employees with disabilities must be considered. The formal name for this planning is computer accommodation. Computer accommodation is defined as the acquisition and modification of end user computing to minimize functional limitations of employees in order to promote productivity and to ensure access to work-related information resources. The process of computer accommodation is not fundamentally different from planning for other end user needs. Both require a thorough understanding of work-site ergonomics and the work processes to be accomplished.

For many managers, however, end user computing is a new and unfamiliar territory and exploring accommodation

equipment and strategies for employees with disabilities makes the task appear more difficult. There are pockets of expertise throughout the federal government, but in many instances there is insufficient product information and limited technical support skills available to achieve timely and effective accommodation solutions. Computer accommodation is typically done on a case by case basis. The number of unmet needs has been increasing as computers become indispensable office automation tools.

## Two who made a difference

This situation has been rapidly changing due to the efforts of Judge Leonard J. Suchanek, chief judge and chairman of the General Services Administration (GSA) Board of Contract Appeals and Frank J. Carr, commissioner, Information Resources Management Service (IRMS). Judge Suchanek, who is blind, initiated the creation of two activities at GSA, the Interagency Committee for Computer Support of Handicapped Employees (ICCSHE), and the Clearinghouse on Computer Accommodation (COCA).

Judge Suchanek's introduction to automation occurred in 1981, when he installed a minicomputer at the Board of Contract Appeals. The minicomputer was purchased primarily as an office automation system and soon the entire Board was benefiting from word and data processing. Everyone, that is, except Judge Suchanek. At that point, he began investigating how computer technology might be employed on behalf of blind people generally and what might exist to accommodate his information needs at the Board. With the assistance of a GSA computer specialist, Daniel Maday, an off-the-shelf braille translation package was located. This package, produced and

marketed by Duxbury Systems, was combined with an LED-120 braille printer, marketed by Triformation Systems, Inc., to create a braille translation facility that allowed any word processing document or data processing file on the computer to be converted into braille. Because of Judge Suchanek's reputation in the community of the disabled, word of the braille system spread rapidly. Soon tours and demonstrations of the system became a frequent occurrence. In addition, a number of phone calls were received from individuals in the government and the private sector asking questions about purchase decisions, software/hardware interfacing, and trends in automation equipment for users with disabilities.

Judge Suchanek decided that leadership in computer accommodation for handicapped employees was needed, and that GSA, with its policy and procurement responsibilities for the federal government, was the logical place for the leadership to reside. The Committee and COCA were established as a result of his leadership initiative and Frank Carr's support.

## Role of the Committee

The Committee today is made up of senior information resources management (IRM) officials from 23 major federal agencies. Through its four working groups policy, information technology initiatives; international initiatives and symposium management the Committee is involved in many activities to "advance the management and use of microcomputer and related technology in order to promote the productivity and achievement of handicapped federal employees."

In its advisory capacity to GSA, the

*Susan Brummel is a computer specialist with the General Services Administration.*

**POLICY**

Committee submitted proposals for action by GSA that are now being implemented. The proposals include development of procurement and management guidelines to assist agencies' efforts to provide information technology products and services to their handicapped employees. ICCSHE also submitted through GSA an issue paper on computer accommodation that has been included in the 1986 *Five-Year Plan for Meeting the Automatic Data Processing and Telecommunications Needs of the Federal Government* prepared by the Office of Management and Budget and GSA.

Other activities of the Committee include annual sponsorship of symposiums on computer accommodation in conjunction with office automation conferences, collaboration with federal laboratories to facilitate transfer of emerging technologies of particular benefit to users with disabilities, and policy level exchange with counterpart organizations in other countries.

#### Agency plans

In recent months, eleven participating agencies have issued internal orders modeled after GSA's which assign responsibility for computer support of handicapped employees to their IRM services. These agencies are: the Departments of Defense, Education, Labor, Justice, Treasury (Internal Revenue Service), and Veterans Administration, Federal Emergency Management Agency, Federal Communications Commission, Office of Personnel Management, National Science Foundation, and Housing and Urban Development.

Formalizing technical support will make it much easier for a handicapped employee to receive the technical information and assistance necessary for an effective computer accommodation to be implemented.

The Clearinghouse on Computer Accommodation (COCA), represents GSA's second major initiative in this area. COCA, a demonstration and technical resource center, responds to individual requests for accommodation assistance governmentwide and assists computer personnel from other agencies whose offices are now formally responsible for computer support activities.

To complement the initiatives of ICCSHE, COCA serves as a central repository for agency-based accommodation solutions and as a point of exchange and training for agency personnel. This service, which is available at no charge to all

agencies, includes telephone and on-site consultants during planning, acquisition, and installation of individual and agency-wide systems that extend information technology for productive use by employees with disabilities. COCA staff also teach a course on *Managing Computer Accommodation for Users with Disabilities* through the GSA Training Center. COCA has responded to over 500 requests for technical assistance and information from agencies.

#### How to accommodate

An accommodation solution may consist of only special-purpose equipment that is used exclusively by the handicapped person. More typically, however, the solution will consist of a combination of standard hardware and software components together with special-purpose hardware and software thereby enhancing a system access by a handicapped individual, while maintaining its availability for use by non-handicapped employees in the work area.

Increasingly, personal computers serve as the core component of most accommodation solutions. By adding screen-reading software and a speech synthesizer, a blind user gains control over information that ordinarily is only presented visually. Through auditory review, a blind user can listen to all or only a portion of the screen information displayed, and thus equipped, can complete the same tasks as a sighted user.

Braille printers, optical character readers, magnifying screens, and large print display software present alternative accommodation solutions. Similarly, special key guards, expanded/customized keyboards, and software to support speech recognition are available to assist individuals with motor impairments.

#### Broader impact

Although additional hardware and software may be required for accommodation, the overall needs of users with disabilities are similar to those of all end-users. In the broadest sense, accommodation refers to the application of ergonomic principles to maximize the capabilities of all users. As agencies proceed in their accommodation responsibilities, they have recognized that improved assessment of and attention to the requirements of users with disabilities results not only in increased productivity, but also a better understanding of work station human factors that impact all workers in similar, but more subtle

ways than users with identifiable disabilities. This overall attention to designing work stations to best enhance user capabilities is becoming increasingly important as people spend more time using office automation equipment. A well-designed work station contributes to user motivation, comfort, and productivity. A poorly designed work station may lead to unnecessary fatigue and discomfort.

In addition, agency experience with accommodation techniques that incorporate emerging technologies (e.g., speech) provides an effective means for evaluating future applications with potential benefit to all end users.

Speech synthesis technology has the potential to benefit sight-impaired individuals who cannot use the information presented visually on monitors. Some of these individuals are presently benefiting from speech synthesis technology that can provide them with the auditory equivalent of information that is presented visually. Future computer systems supporting both visual and/or auditory review of information may prove superior to vision-only systems and result in greater productivity levels for all users.

Speech recognition technology can be employed to provide access to computers by individuals who do not have the functional ability to use a keyboard due to sensory and/or motor limitations. Such a capability would also benefit individuals with limited keyboard experience and those who work in "hands-busy" and/or "eyes-busy" environments where the use of a keyboard and monitor alone is inadequate.

#### For the hearing impaired

Speech input/output technology also has great potential to offset the functional limitations of individuals with severe hearing and/or speech impairments that impact their ability to use a telephone. Effective telephone communication by deaf or non-vocal individuals has yet to be realized. The keyboard-based or "teletype" communication currently employed is very slow and limiting. Both the sending and receiving parties must be able to use a keyboard and have a compatible TDD (Telecommunications Devices for the Deaf). Speech recognition-based computer systems used in conjunction with standard telephones would remove these barriers to effective telephone communication. Non-vocal individuals could send spoken messages generated through a combination of

**POLICY**

stored and real-time message units. Deaf individuals could use monitors to visually review the contents of spoken messages that they receive.

As breakthroughs continue to occur in the design and functional capabilities of information technology, appropriate at-

tention to the needs of users with disabilities will not only ensure their opportunities for continued productive contributions in the work place, but will also serve to drive the technologies toward the broader goals of integration and interconnection among information tools necessary for successful office informa-

tion systems of the future.

The Committee and COCA represent two GSA programs that are effectively guiding agencies to better utilize current and emerging information technology on behalf of their employees with disabilities. ☐

Reprinted with permission of  
Government Data Systems

## How Ada Works

By Dennis J. Tinley

Some people question Ada  
as a real-time language.  
They are mistaken

**T**he current tempest in the Ada language teapot asks the wrong question. The question is not *can* Ada perform in real time? Power, money, expertise and product say it can and will. The Department of Defense in November again reaffirmed its commitment to Ada language implementation. Each of the armed forces continues to follow suit. Software companies are announcing faster compilers. Most major minicomputer manufacturers are in the process of introducing new Ada language products.

The real question is *how*? How best to implement Ada in real-time during this transition period, in which Fortran libraries and Fortran *thinking* still dominate daily affairs of the program manager.

Preceding the technical aspects of real-time implementation and in fact driving their solutions are questions concerning commitment, market forces and industry attitudes.

The Ada industry is indeed in a transition period. Ada is leaving the laborato-

*Dennis J. Tinley is the manager of software products at Concurrent Computer Corp.*

## HUMAN RESOURCES

# Act Puts Electronic Aids to Work for the Disabled

BY JOHN M. WILLIAMS  
Special to GCN

Section 508 of the Rehabilitation Amendments Act of 1986 may have far-reaching positive consequences for present and future disabled federal employees using electronic equipment.

The Electronic Accessibility Guidelines issued by the Department of Education and the General Services Administration are being revised, for the second time, by the National Institute on Disability and Rehabilitation Research.

The initial guidelines will be established no later than October. Final guidelines are due on Sept. 30, 1988.

The Equal Employment Opportunity Commission says there are more than 25,000 physically disabled federal employees. Most of them can benefit from electronic equipment.

A number of forces contributed to the passing of the amendments, including the recognition that special needs of individuals with handicaps should be met.

Also, since laws require that programs and buildings be accessible, the National

Council on the Handicapped has incorporated requirements for equipment accessibility in its recommendations to Congress on the reauthorization of the Rehabilitation Act of 1986.

Finally, the Senate Committee on Labor and Human Resources felt that since architectural barriers are being eliminated, it is important that equipment housed within these facilities also be accessible to individuals with handicaps.

A number of federal agencies, for example the Veterans Administration's Information Technology Center (ITC), and the Department of Justice, are reviewing information processing systems to determine how accessible they are for handicapped employees. If they are not accessible, federal agencies will either make them accessible or buy new ones according to the need.

"New efforts are underway to make existing electronic equipment accessible, and federal agencies are looking to purchase systems in the future that will meet accessibility guidelines," said Susan Boaz, computer specialist at ITC.

The amendments are design guidelines, said Leonard Suchanek, chief administrative judge for the General Services Administration and chairman of the federal government's Interagency Committee for Computer Support of Handicapped Employees.

It is hoped the guidelines will help maintain current levels of employment for disabled federal employees and will provide more positions for disabled people wishing to work for the federal government in the future.

The legislation is not binding upon the manufacturers of electronic equipment. However, many systems are easily adaptable, Boaz said.

Manufacturers of special equipment for handicapped people believe the guidelines

may be a big boon for them in the future.

The amendments modify the Rehabilitation Act of 1973. They clearly show that Congress intends that electronic data processing and general electronic office equipment either leased or purchased after September 1988 be usable by handicapped persons.

Of particular importance to disabled people is section 508(a), which states:

(1). The Secretary of Education, through the National Institute on Disability and Rehabilitation Research and the administrator of the General Services Administration, in consulting with the electronics industry, shall develop and establish guidelines for electronic office equipment with or without special peripherals.

(2). The guidelines established pursuant to paragraph (1) shall be applicable with respect to electronic equipment, whether purchased or leased.

(3). The initial guidelines shall be established not later than October 1, 1987, and shall be periodically revised as technologies advance or change.

Section 508(b) states:  
"Beginning after September 30, 1988, the administrator of the General Service Agency shall adopt guidelines for electronic accessibility established under subsection (a) for the federal procurement of electronic equipment. Each agency shall comply with the guidelines adopted under this subsection."

Section 508(c) states:  
"For the purpose of this section, the term special peripherals means a special aid that provides access to electronic equipment that is otherwise inaccessible to handicapped individuals."

It is possible that section 508(a) can be applied to copying machines, voice/data communications systems and other equipment purchased or leased by the federal government.

# Nobody ever thinks of PC AT batteries until it's too late.



## Does It Is Good Service

## Board of Contract Appeals

General Services Administration  
Washington DC 20405

May 28, 1986

MEMORANDUM FOR TERENCE C. GOLDEN  
ADMINISTRATOR

THRU: FRANK J. CARR  
COMMISSIONER, INFORMATION RESOURCES MANAGEMENT SERVICE

FROM: LEONARD J. SUCHANEK *Leonard J. Suchanek*  
CHIEF JUDGE AND CHAIRMAN, BOARD OF CONTRACT APPEALS

SUBJECT: Summary of Activities: The Interagency Committee for Computer  
Support of Handicapped Employees

### I. BACKGROUND

The Interagency Committee for Computer Support of Handicapped Employees was established by the General Services Administration (GSA) to advance the management and use of microcomputers and related technology in order to promote the productivity and achievement of handicapped Federal employees.

The Committee convened for the first time at GSA on February 25, 1985. The Committee has met four times. Representatives from the 17 participating agencies are senior executives that have been designated by the heads of their respective agencies.

### II. CURRENT ACTIVITIES

A. Strategic Defense Initiative Organization (SDIO) and National Aeronautics and Space Administration (NASA) requested participation by the Interagency Committee in support of their technology transfer missions. (Attachment 1)

B. The Office of Management and Budget (OMB) requested an issue paper on computer accommodation for inclusion in the 1986 Five-Year Plan for Meeting the Automatic Data Processing and Telecommunications Needs of the Federal Government. (Attachment 2)

C. Participating agencies are reviewing proposed policy recommendations that will be submitted to GSA in the near future. The Interagency Committee anticipates that GSA's implementing actions, in response to the recommendations, will guide agencies' efforts to utilize technology more effectively on behalf of their handicapped employees.

D. Information Resources Management Service (IRMS) is expanding the capability of the GSA Clearinghouse on Computer Accommodation (COCA) to respond to agency requests for technical assistance in accommodating their handicapped employees. COCA will soon be formally opened as a walk-in technical resource center serving all Federal agencies. COCA will be located in room 1213, adjacent to the Microcomputer User Support Center and across the hall from Office Technology Plus. A draft FIRMR bulletin detailing the services of COCA is being circulated for comment within GSA.

E. GSA exhibited at the President's Committee on Employment of the Handicapped on April 30 - May 2, 1986. The exhibit highlighted the work of the Interagency Committee and COCA.

### III. ACHIEVEMENTS IN 1985

A. The Interagency Committee co-sponsored a symposium in conjunction with the Federal Office Automation Conference. The symposium represented the first time that the needs of specially-abled users were addressed at a major computer conference. Over two hundred participants from 45 agencies attended the one-day symposium.

B. Eight agencies completed internal orders modeled after the GSA Order 5440.308 which assigned the responsibility for computer support of handicapped employees to IRMS. The orders specify that computer accommodation solutions be exchanged with the GSA Clearinghouse on Computer Accommodation (COCA). COCA has received 112 reports from agencies documenting computer accommodation solutions.

C. Two IRMS computer specialists staff COCA and serve in liaison/support capacity to the Interagency Committee. They responded to 270 requests for accommodation information and assistance from Federal agencies in 1985.

D. COCA staff prepared and taught a course on "Managing Computer Accommodation for Users with Disabilities". The course is offered through the GSA Training Center.

E. Following my meeting with representatives from the Royal Association for Disability and Rehabilitation (RADAR) in London, and the Swedish Institute for the Handicapped in Stockholm, the Interagency Committee established an international initiative working group to facilitate the exchange of policy and technical information of mutual interest to the Interagency Committee and counterpart organizations in Europe.

### IV. ADDITIONAL ACTIVITIES PLANNED FOR 1986

A. The Committee will participate with GSA, as requested, during GSA's review and action on Committee recommendations. The policy working group of the Committee will complete its review of several draft proposals that have not yet received Committee concurrence.

B. The Committee will continue to encourage and assist other agencies in the issuance of internal orders modeled after the GSA order which assigned the responsibility for computer support of handicapped employees to IRMS.

C. The Committee will continue to sponsor events such as symposia and demonstrations in order to promote awareness of technical and management techniques that promote employee productivity. Federal agencies will be targeted for participation in these events together with private industry, universities, and foreign, state, and local governments. COCA staff will continue to support the Interagency Committee in this endeavor. Presentations will be given soon at a Department of Defense class for contracting officers and a local meeting of the Institute for Electrical and Electronics Engineers (IEEE) Computer Society.

D. The Committee will explore "beta" test-site opportunities that would be of mutual benefit to participating agencies and accommodation product developers.

E. The Committee will make its expertise in policy and technical initiatives available to the recently formed Senate committee that is assessing the needs of handicapped employees in the Legislative branch.

Attachments



**UNCLASSIFIED**

## OIT STAFF SUMMARY

**SUBJECT:**

## Interagency Committee on Computer Support for Handicapped Employees

**PURPOSE OF ACTION:**

To have DCI nominate Ed Maloney to membership on subject committee with [redacted] designated as alternate.

**ACTION OFFICER:**

### REFERENCES:

Letter from Judge Leonard Suchanek, committee chairman to DCI  
dated 24 August 87, inviting CIA participation on subject committee.

### RESOURCE PACKAGE & COSTS:

**NA**

**THIS PAPER IS FOR YOUR:**

[illegible]**DESCRIPTION:**

As a result of a telecon between [redacted] OIT and Judge Suchanek, chairman of the Interagency Committee on Computer Support for Handicapped Employees, Judge Suchanek sent a letter to the DCI inviting CIA's participation on the committee.

The enclosed package has Ed Maloney forwarding a memo from the DDA to the DCI, for the DDA's signature, recommending that Ed be nominated by the DCI for membership on the committee. The memo from DDA to DCI and letter from DCI to Judge Suchanek nominating Ed are enclosed along with a Form 610 transmitting the package from Ed to DDA.

(It's easier to look at the package than to explain it in words.)

**SIGNATURE OF ACTION OFFICER**

DATE \_\_\_\_\_

UNCLASSIFIED